

ABSTRACT

A composite medium including at least one trialkyl methylammonium compound homogenously dispersed in a polyacrylonitrile matrix. The composite medium may be formed into beads or may be impregnated into a substrate and used in an ion processing element. The at least one trialkyl methylammonium compound may comprise trialkyl methylammonium nitrate or trialkyl methylammonium chloride and may be present from approximately 5% by weight to approximately 30% by weight. The polyacrylonitrile may be present in the composite medium from approximately 70% by weight to approximately 95% by weight. A method of forming the composite medium is also disclosed, as is a method of removing a constituent from a fluid stream.

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